



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 114839

**TO:** Jeanine Goldberg  
**Location:** rem/2e74  
**Art Unit:** 1634  
**Friday, February 20, 2004**

**Case Serial Number:** 10/009897

**From:** Barb O'Bryen  
**Location:** Biotech-Chem Library  
Remsen E01A69  
**Phone:** 571-272-2518

*BobB*  
[barbara.obryen@uspto.gov](mailto:barbara.obryen@uspto.gov)

### Search Notes

**O'Bryen, Barbara**

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**From:** Goldberg, Jeanine  
**Sent:** Friday, February 20, 2004 12:17 PM  
**To:** O'Bryen, Barbara  
**Subject:** RE: 10/009897-seq id no: 38

28 Please.  
thanks

-----Original Message-----

**From:** O'Bryen, Barbara  
**Sent:** Friday, February 20, 2004 12:17 PM  
**To:** Goldberg, Jeanine  
**Subject:** RE: 10/009897-seq id no: 38

Jeanine,  
In the subject line you have seq 38, but the message has seq 28. Which is correct?  
Thanks,  
Barb

-----Original Message-----

**From:** Goldberg, Jeanine  
**Sent:** Friday, February 20, 2004 12:10 PM  
**To:** O'Bryen, Barbara  
**Subject:** 10/009897-seq id no: 38

Can you please tell me if SEQ ID NO: 28 has any hits compared to patent 6,495,110 searching only against this patent.

THANKS

6495110

Jeanine Enewold Goldberg  
1634  
571-272-0743  
REM 2E74

**STIC-ILL**

*Mo*

**From:** Goldberg, Jeanine  
**Sent:** Friday, February 20, 2004 11:46 AM  
**To:** STIC-ILL  
**Subject:** pl ease pull hiv reference

*483360*

1. Korber et al. 1997 Human Retroviruses and AIDS: a Complication and analysis of Nucleic Acid and Amoni Acid SEequences, Pp. I18-I90. Los Alamos, NM Los ALamos National Labratory..

**THANKS**

Jeanine Enewold Goldberg  
1634  
571-272-0743  
REM 2E74

*808.20*

*UHM 2/23*

GenCore version 5.1.6  
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clieic - nucleic search, using SW model

n: February 20, 2004, 14:42:01 ; Search time 4 Seconds

(without alignments)  
2.678 Million cell updates/sec

: ct score: 22

ncs: 1 cacaatcaaactgtgcattac 22

ng table: IDENTITY NUC Gapop 10.0 , Gapext 0.5

shed: 112 seqs, 243491 residues

l number of hits satisfying chosen parameters: 224

num DB seq length: 0

num DB seq length: 2000000000

-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

bases: 5492110.seq

Pre. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

hit no.	Score	Query	Match	Length	DB	ID	Description
1	17.4	79.1	2529	1	US-09-184-418C-62	Sequence 62, Appl	RESULT 1
2	17.4	79.1	2601	1	US-09-184-418C-60	Sequence 60, Appl	US-09-184-418C-62/c
3	17.4	79.1	2652	1	US-09-184-418C-61	Sequence 61, Appl	Sequence 62, Application US/09184418C
4	17.4	79.1	8954	1	US-09-184-418C-6	Sequence 6, Appl	; Patent No. 6492110
5	15.6	70.9	2574	1	US-09-184-418C-107	Sequence 107, Appl	; GENERAL INFORMATION:
6	15.6	70.9	2633	1	US-09-184-418C-104	Sequence 104, Appl	; APPLICANT: Gao, Feng
7	15.6	70.9	2651	1	US-09-184-418C-105	Sequence 105, Appl	; APPLICANT: Shaw, George
8	15.6	70.9	8959	1	US-09-184-418C-11	Sequence 11, Appl	; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
9	15.2	69.1	2583	1	US-09-184-418C-44	Sequence 44, Appl	; INVENTION: IMUNODEFICIENCY VIRUS TYPE 1
10	15.2	69.1	2640	1	US-09-184-418C-41	Sequence 41, Appl	; FILE REFERENCE: D6287
11	15.2	69.1	2658	1	US-09-184-418C-42	Sequence 42, Appl	; CURRENT APPLICATION NUMBER: US/09/184, 418C
12	15.2	69.1	8992	1	US-09-184-418C-33	Sequence 4, Appl	; SEQ ID NO: 62
13	14.2	64.5	2538	1	US-09-184-418C-36	Sequence 4, Appl	; LENGTH: 2529
14	14.2	64.5	2538	1	US-09-184-418C-54	Sequence 54, Appl	; SEQ ID NO: 112
15	14.2	64.5	2541	1	US-09-184-418C-18	Sequence 18, Appl	; CURRENT FILING DATE: 1999-11-02
16	14.2	64.5	2579	1	US-09-184-418C-51	Sequence 51, Appl	; NUMBER OF SEQ ID NOS: 112
17	14.2	64.5	2606	1	US-09-184-418C-33	Sequence 33, Appl	; SEQ ID NO: 60
18	14.2	64.5	2610	1	US-09-184-418C-15	Sequence 52, Appl	; LENGTH: 2601
19	14.2	64.5	2645	1	US-09-184-418C-52	Sequence 34, Appl	; TYPE: DNA
20	14.2	64.5	2657	1	US-09-184-418C-34	Sequence 96, Appl	; ORGANISM: Human immunodeficiency virus type 1
21	14.2	64.5	2661	1	US-09-184-418C-16	Sequence 10, Appl	; FEATURE:
22	14.2	64.5	8953	1	US-09-184-418C-3	Sequence 75, Appl	; OTHER INFORMATION: isolate=93BR029, gene=tat
23	14.2	64.5	8966	1	US-09-184-418C-5	Sequence 84, Appl	US-09-184-418C-60
24	14.2	64.5	8968	1	US-09-184-418C-1	Sequence 9, Appl	Query Match 79.1%; Score 17.4; DB 1; Length 2601;
25	13.5	61.8	2598	1	US-09-184-418C-98	Sequence 1, Appl	Best local Similarity 94.7%; Pred. No. 0; MisMatches 0;
26	13.5	61.8	2655	1	US-09-184-418C-96	Sequence 95, Appl	Matches 18;
27	13.5	61.8	2721	1	US-09-184-418C-96	Sequence 96, Appl	Indels 0; Gaps 0;
28	13.5	61.8	9060	1	US-09-184-418C-15	Sequence 10, Appl	
29	13.2	60.0	579	1	US-09-184-418C-75	Sequence 8, Appl	
30	13.2	60.0	579	1	US-09-184-418C-84	Sequence 84, Appl	
31	13.2	60.0	8972	1	US-09-184-418C-9	Sequence 9, Appl	
32	13.2	60.0	9010	1	US-09-184-418C-8	Sequence 6, Appl	
33	12.6	57.3	2544	1	US-09-184-418C-9	Sequence 99, Appl	

2 ACATTTAAACTGTGCATT 20  
       ||||| ||||| | | | |  
 1538 ACATTTAAACTATGCATT 1520

SULT 3 -09-184-418C-6/C Sequence 61, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 CURRENT FILING DATE: 1999-11-02  
 NUMBER OF SEQ ID NOS: 112  
 SEQ ID NO 61  
 LENGTH: 2574  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=93BR029; gene=env  
 SEQ ID NO 107  
 LENGTH: 2574  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=94IN476-104; gene=env  
 US-09-184-418C-107

Query Match Score 79.1%; Score 15.6%; Score 10.9%;  
 Best Local Similarity 94.7%; Best Local Similarity 81.8%; Best Local Similarity 81.8%;  
 Matches 18; Conservative 0; Mismatches 0; Mismatches 0; Mismatches 0;  
 Indels 0; Indels 0; Indels 0; Gaps 0; Gaps 0;

RESULT 6 US-09-184-418C-104/C Sequence 104, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 CURRENT FILING DATE: 1999-11-02  
 NUMBER OF SEQ ID NOS: 112  
 SEQ ID NO 104  
 LENGTH: 2652  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=93BR029; gene=rev  
 SEQ ID NO 6  
 LENGTH: 2652  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=94IN476-104; gene=tat  
 US-09-184-418C-104

Query Match Score 79.1%; Score 17.4%; Score 15.6%; Score 10.9%;  
 Best Local Similarity 94.7%; Best Local Similarity 81.8%; Best Local Similarity 81.8%;  
 Matches 18; Conservative 0; Mismatches 0; Mismatches 0; Mismatches 0;  
 Indels 0; Indels 0; Indels 0; Gaps 0; Gaps 0;

SULT 4 -09-184-418C-6/C Sequence 6, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 CURRENT FILING DATE: 1999-11-02  
 NUMBER OF SEQ ID NOS: 112  
 SEQ ID NO 6  
 LENGTH: 2652  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=93BR029; gene="gag"; 1437..4448:gene="pol";  
 OTHER INFORMATION: 4393..4971:gene="vif"; 4911..5201:gene="vpr";  
 OTHER INFORMATION: 5182..7782:gene="tat"; 5321..7972:gene="rev";  
 OTHER INFORMATION: 5586..8114:gene="env"; 8116..8736:gene="nef";  
 -09-184-418C-6

Query Match Score 79.1%; Score 17.4%; Score 15.6%; Score 10.9%;  
 Best Local Similarity 94.7%; Best Local Similarity 81.8%; Best Local Similarity 81.8%;  
 Matches 18; Conservative 0; Mismatches 0; Mismatches 0; Mismatches 0;  
 Indels 0; Indels 0; Indels 0; Gaps 0; Gaps 0;

SULT 5 -09-184-418C-107/c Sequence 5, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 CURRENT FILING DATE: 1999-11-02

Query Match Score 79.1%; Score 17.4%; Score 15.6%; Score 10.9%;  
 Best Local Similarity 94.7%; Best Local Similarity 81.8%; Best Local Similarity 81.8%;  
 Matches 18; Conservative 0; Mismatches 0; Mismatches 0; Mismatches 0;  
 Indels 0; Indels 0; Indels 0; Gaps 0; Gaps 0;

Qy 1 CACCAATTAAACTGTGCATTAC 22  
 Db 1120 CACCAATTAAAGCTATGGTAC 1099

Query Match Score 70.9%; Score 15.6%; Score 10.9%;  
 Best Local Similarity 81.8%; Best Local Similarity 81.8%; Best Local Similarity 81.8%;  
 Matches 18; Conservative 0; Mismatches 0; Mismatches 0; Mismatches 0;  
 Indels 0; Indels 0; Indels 0; Gaps 0; Gaps 0;

Qy 1 CACCAATTAAACTGTGCATTAC 22  
 Db 1526 CACCAATTAAAGCTATGGTAC 1505

RESULT 7 US-09-184-418C-105/C Sequence 105, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 CURRENT FILING DATE: 1999-11-02

NUMBER OF SEQ ID NOS: 112  
EQ ID NO: 105  
LENGTH: 2651  
TYPE: DNA  
ORGANISM: Human immunodeficiency virus type 1  
FEATURE:  
OTHER INFORMATION: isolate=94IN476-104; gene=rev  
09-184-418C-105

very Match 70.9%; Score 15.6; DB 1; Length 2651;  
est Local Similarity 81.8%; Pred. No. 1.6;  
atches 18; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

1 CACAAATTAAAAGCTATGTGTTAC 22  
||||||| ||||| |||||  
1387 CACAAATTAAAAGCTATGTGTTAC 1346

RESULT 10  
US-09-184-418C-41/c  
Sequence 41, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; IMMUNODEFICIENCY VIRUS TYPE 1  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; SEQ ID NO: 41  
; LENGTH: 2640  
; FILE REFERENCE: D6287  
; NUMBER OF SEQ ID NOS: 112  
; OTHER INFORMATION: isolate=92RW009; gene=tat

Query Match 69.1%; Score 15.2; DB 1; Length 2640;  
Best Local Similarity 85.0%; Pred. No. 2.3;  
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 CACAAATTAAAAGCTATGTGTTAC 20  
||||||| ||||| |||||  
Db 1135 CACAAATTAAAAGCTATGTGTT 1116

RESULT 11  
US-09-184-418C-42/c  
Sequence 42, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; IMMUNODEFICIENCY VIRUS TYPE 1  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; SEQ ID NO: 42  
; LENGTH: 2658  
; FILE REFERENCE: D6287  
; NUMBER OF SEQ ID NOS: 112  
; OTHER INFORMATION: isolate=92RW009; gene=tat

Query Match 69.1%; Score 15.2; DB 1; Length 2658;  
Best Local Similarity 85.0%; Pred. No. 2.3;  
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 CACAAATTAAAAGCTATGTGTTAC 20  
||||||| ||||| |||||  
Db 1539 CACAAATTAAAAGCTATGTGTT 1520

RESULT 12  
US-09-184-418C-42/c  
Sequence 42, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; IMMUNODEFICIENCY VIRUS TYPE 1  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; SEQ ID NO: 42  
; LENGTH: 2658  
; FILE REFERENCE: D6287  
; NUMBER OF SEQ ID NOS: 112  
; OTHER INFORMATION: isolate=92RW009; gene=tat

Query Match 69.1%; Score 15.2; DB 1; Length 2658;  
Best Local Similarity 85.0%; Pred. No. 2.3;  
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 CACAAATTAAAAGCTATGTGTTAC 20  
||||||| ||||| |||||  
Db 1400 CACAAATTAAAAGCTATGTGTT 1381

RESULT 12  
US-09-184-418C-44/c  
Sequence 44, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; IMMUNODEFICIENCY VIRUS TYPE 1  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; SEQ ID NO: 44  
; LENGTH: 2583  
; FILE REFERENCE: D6287  
; NUMBER OF SEQ ID NOS: 112  
; OTHER INFORMATION: isolate=92RW009; gene=env  
; ORGANISM: Human immunodeficiency virus type 1  
; FEATURE:  
; OTHER INFORMATION: isolate=92RW009; gene=env  
09-184-418C-44

3-09-184-418C-4/c  
 Sequence 4, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 NUMBER OF SEQ ID NOS: 112  
 SEQ ID NO 4  
 LENGTH: 8992  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=92RW009; 139\_1624::gag; 1690\_4428::pol (N-terminus uncertain)  
 OTHER INFORMATION: 4373\_4951::vif; 4891\_5181::vpr; 5162\_7801::rt; 5301\_7958::rev;  
 OTHER INFORMATION: 5403\_5648::env; 5566\_8148::env; 8150\_8773::ref  
 )-09-184-418C-4

RESULT 13  
 Query Match 69.1%; Score 15.2%; DB 1; Length 8992;  
 Best Local Similarity 85.0%; Prod. No. 2.9;  
 Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;  
 ) 1 CACATTAAACACTGTGATT 20  
 ) 6700 CACATTAAACATGTGTT 6681

SQ13  
 )-09-184-418C-36/c  
 Sequence 36, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1  
 FILE REFERENCE: D6287  
 CURRENT APPLICATION NUMBER: US/09/184,418C  
 NUMBER OF SEQ ID NOS: 112  
 SEQ ID NO 36  
 LENGTH: 2538  
 TYPE: DNA  
 ORGANISM: Human immunodeficiency virus type 1  
 FEATURE:  
 OTHER INFORMATION: isolate=90CR056; gene=env  
 )-09-184-418C-36

RESULT 14  
 Query Match 64.5%; Score 14.2%; DB 1; Length 2538;  
 Best Local Similarity 84.2%; Prod. No. 5.4;  
 Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

) 2 ACATTAACACTGTGATT 20  
 ) 1107 ACAATTAAACATGTGTT 1089

Search completed: February 20, 2004, 14:42:06  
 Job time : 5 secs

3-09-184-418C-54/c  
 Sequence 54, Application US/09184418C  
 Patent No. 6492110  
 GENERAL INFORMATION:  
 APPLICANT: Hahn, Beatrice  
 APPLICANT: Gao, Feng  
 APPLICANT: Shaw, George  
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1  
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1